

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* ERIN ANTONY HANDGEN, ERI M. RENTSCHLER,  
and MICHAEL KENNARD TAYLER

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Appeal 2007-0439  
Application 10/630,260<sup>1</sup>  
Technology Center 2100

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Decided: June 12, 2007

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*Before:* KENNETH W. HAIRSTON, LANCE LEONARD BARRY, and  
JAY P. LUCAS, *Administrative Patent Judges.*

LUCAS, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF CASE

Appellants appeal from a final rejection of claims 1 to 12 under authority of 35 U.S.C. § 134. The Board of Patent Appeals and Interferences (BPAI) has jurisdiction under 35 U.S.C. § 6(b).

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<sup>1</sup> Application filed July 30, 2003. The real party in interest is Hewlett Packard Development Co.

Appellants' invention relates to a configuration for integrated circuit (IC) components in which the logic can be shared between components to permit companion ICs to perform part of the interface with a bus. Each component IC would greatly reduce its pin count under the shared logic, resulting in a net reduction in the overall number of conductive pins, and thus an overall savings in manufacturing costs. (Specification, page 2).

Claim 1, Claim 6, and Claim 11 are exemplary:

1. An integrated circuit component comprising:  
a logic block capable of being configured to interface with a first companion integrated circuit and to receive information that is communicated from the first companion integrated circuit, which information was communicated to the first companion integrated circuit via a first portion of a system bus;  
and a logic block capable of being configured to interface with a second companion integrated circuit and to receive information that is communicated from the second companion integrated circuit, which information was communicated to the second companion integrated circuit via a second portion of the system bus, wherein the first companion integrated circuit and the second companion integrated circuit are disposed in separate integrated circuit chips.
6. A system in which a plurality of companion integrated circuit components collectively implement a logic function embodied in a single, conventional integrated circuit component, comprising:  
a host integrated circuit component communicating with other integrated circuit components via a system bus;  
a first integrated circuit component comprising logic for interfacing with a first portion of system bus;  
a second integrated circuit component comprising logic for interfacing with a second portion of system bus;  
a third integrated circuit component not directly coupled with the system bus and comprising logic for communicating with the host integrated circuit via the first and second integrated circuit components, wherein the first integrated circuit component, the

second integrated circuit component, and the third integrated circuit component are provided in separate integrated circuit chips.

11. An integrated circuit component comprising two independent logic portions, each logic portion being capable of being alternatively configured to communicate with a host integrated circuit via a portion of a system bus and a companion integrated circuit and to receive information that is communicated from the companion integrated circuit, which information was communicated to the companion integrated circuit via a portion of a system bus.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Estakhri ('906)

US 6,172,906 B1

Jan. 9, 2001

#### REJECTIONS

Claim 7 was rejected under 35 U.S.C. § 112, second paragraph, for being indefinite. Examiner has withdrawn the rejection of claim 7 under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph, in view of Appellants' argument presented in the Appeal Brief. (Answer 9).

Claim 11 was rejected under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph, for being indefinite. Examiner has maintained the rejection of claim 11 under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph, and argued that the word "alternatively" renders the claim indefinite. (Answer 9). Appellants have argued against this position of the Examiner, but have mentioned that they would be agreeable to an Examiner's amendment that deletes the term "alternatively". (Br. 9). However, the Examiner has not acted upon that offer, so we will proceed with the rejection still standing in the case. We do note, in passing, that the

proposed bare deletion of the word “alternatively” changes the meaning of claim 11, unless there are further changes.<sup>2</sup>

Claims 1 to 6 and 8 to 12 stand rejected under 35 U.S.C. § 102(b) for being anticipated by ‘906<sup>3</sup>.

Appellants contend that the claimed subject matter is not anticipated by ‘906 because required elements of the claimed subject matter are not taught by the reference, and for reasons to be discussed more fully below.

Rather than repeat the arguments of Appellants or the Examiner, we make reference to the Briefs and the Answer for their respective details. Only those arguments actually made by Appellants have been considered in this decision. Arguments which Appellants could have made but chose not to make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2004).<sup>4</sup>

We affirm the rejections in part.

### ISSUES

The first issue is whether Appellants have shown that the Examiner erred in rejecting claim 11 under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph, for being

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<sup>2</sup> In the Brief, page 17, as applied to claim 11, there is a hint that the “and” becomes an “or” when alternatively is deleted.

<sup>3</sup> It is noted that claim 7, for which the rejection under 35 U.S.C. § 112 paragraph 2 was withdrawn, is specifically not mentioned in this rejection under 35 U.S.C. § 102 (b), and was not argued by either party. Claim 7 is therefore not subject to this appeal.

<sup>4</sup> Appellants have not presented any substantive arguments directed separately to the patentability of the dependent claims or related claims in each group, except as will be noted in this opinion. In the absence of a separate argument with respect to those claims, they stand or fall with the representative independent claim. *See In re Young*, 927 F.2d 588, 590, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991). *See also* 37 C.F.R. § 41.37(c)(1)(vii).

indefinite. The second issue is whether there is a legally sufficient justification for reading the limitations of the claims 1 to 6 and 8 to 12 on the reference '906 under 35 U.S.C. § 102(b).

### FINDINGS OF FACT

Findings with respect to the rejection of claim 11 under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph:

1. A careful reading of Claim 11 shows an alternative structure. The claim requires an IC component comprising two independent logic portions, each being capable of being alternatively configured to [do X] and to [do Y]. We notice that X and Y are different. X requires that the logic portion communicates with a host IC in a certain way, and Y requires the logic portion receives information, not mentioning the host. We do not agree with the Examiner's conclusion that there is only one configuration for each logic portion.

Findings with respect to the rejection of claim 1 to 6 and 8 to 12 under 35 U.S.C. § 102 (b):

2. Appellants have invented a system for configuring the logic on integrated circuits (IC) between a one IC and at least one other companion IC, which serves to reduce the total pin count and thus the manufacturing costs as a whole. (Specification 2).
3. Examiner has read the claims on the '906 patent to Estakhri et al. In his rejection recited in the Examiner's Answer, page 4 and 5, the Examiner has recited how each claimed component in Claim 1 is read on the reference. Appellants' argument that

the '906 patent is "simply inapplicable" does not indicate the error in applying the claimed limitations as Examiner indicated.

4. With respect to claims 2 to 5, we note in Figure 6a that bus 675 carries the output of controller 510, using all data bits (indicated as D[0:15]). We note in the same figure that the signals along bus segment 680 contain the low order data bits (D[0:7]) and those long bus segment 684 contain the high order data bits (D[8:15]). Thus it is not an error to read the unified bus logic, using all the data bits, on the controller 510.
5. With respect to claim 6 to 8, we can comprehend the Examiner's argument about the possibility of the item 670 being conceptually embodied in multiple chips. However, inherency requires a stronger showing, namely that the inherent characteristic is necessarily as indicated in the rejection. See the *Continental Can Co.* case below. Items 670 and 672 are described in '906, column 6, line 60 *ff* as "a first flash memory chip 670 designated FLASH0 and a second flash memory chip 672 designated FLASH1." We do not find support in '906, nor in the Wikipedia definition of flash memory, of the claimed three components being necessarily provided in separate integrated circuit chips.
6. With respect to claims 9 and 10, we note in Figure 6a of '906 connections between the flash memory chips 670 and 672. Portions of the information from each of the memory chips is channeled to host 504 (Figure 6b) through these connections connecting the two chips. Examiner has read each of these two recited memory chips as the two claimed intermediate

integrated circuits, and the overall full circuitry of Figures 6a and 6b as the integrated circuit component recited in the preamble and last line. (Answer, 7). We do not find error in reading the breadth of this claim on '906.

7. With respect to claims 11 and 12, in '906 we note the reading of the claimed limitations of alternatively configuring each logic portion to communicate with the host IC and with the companion IC as specified in the claim. ('906, Figure 6a). We have reviewed Examiner's reading of the claim on '906, and find no error, as each logic portion is alternatively connected to the host through the companion and bus and to the companion without the host as the I/O registers latch on the bus data lines. (Answer, 8). Note the cross connections between the Flash Memory Chips 670, 672.

#### PRINCIPLES OF LAW

On appeal, Appellant bears the burden of showing that the Examiner has not established a legally sufficient basis for the rejection of the claims.

"In reviewing the [E]xaminer's decision on appeal, the Board must necessarily weigh all of the evidence and argument." *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

Although "the meaning of terms, phrases, or diagrams in a disclosure is to be explained or interpreted from the vantage point of one skilled in the art, all the limitations must appear in the specification." *Lockwood v.*

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*American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997). The specification need not describe the claimed subject matter in exactly the same terms as used in the claims, but it must contain an equivalent description of the claimed subject matter. (*Id.*)

Patent claim is not invalid for indefiniteness unless it is insolubly ambiguous; therefore, if meaning of claim is discernible, claim is sufficiently clear to avoid invalidity on indefiniteness grounds, even if interpreting claim is difficult, and construction is one over which reasonable persons could disagree. *Bancorp Services LLC v. Hartford Life Insurance Co.*, 359 F.3d 1367, 69 USPQ2d 1996, 1999 (Fed. Cir. 2004)

It is axiomatic that anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim. *See In re King*, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986) and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984).

Our reviewing court states in *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) that “claims must be interpreted as broadly as their terms reasonably allow.” Our reviewing court further states, “[t]he terms used in the claims bear a ‘heavy presumption’ that they mean what they say and have the ordinary meaning that would be attributed to those words by persons skilled in the relevant art.” *Texas Digital Sys. Inc v. Telegenix Inc.*, 308 F.3d 1193, 1202, 64 USPQ2d 1812, 1817 (Fed. Cir. 2002).



To serve as anticipation when the reference is silent about the asserted inherent characteristic, such gap in the reference may be filled with recourse to extrinsic evidence. Such evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. *Continental Can Co. USA Inc. v. Monsanto Co.*, 948 F2d 1264, 1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991)

### ANALYSIS

Appellants contend that the Examiner erred in rejecting claim 11 under 35 U.S.C. § 112 2<sup>nd</sup> paragraph. According to the *Bancorp* case cited above, such a claim must be insolubly ambiguous to be rejected under this statutory provision. Reviewing the Findings of Facts #1 above, we found that the meaning of claim 11 can, and was, discerned. We, thus, conclude that the Examiner erred, as expressed by Appellants.

Appellants contend that Examiner erred in rejecting claims 1 to 6, and 8 to 12 under 35 U.S.C. § 102(b). Reviewing Findings of Fact #2 to #7, we find support for the rejection of claims 1 to 5 and 9 to 12 in the prior art as recited in the '906 patent. The claimed elements in the context of a memory interface device are present in the reference. However, we do not find support for the rejection of claim 6 and its dependent claim 8. In Finding of Fact #5 we found that the ICs need not be inherently in separate chips, and thus the three chips of claims 6 and 8 are not anticipated by the reference.

### CONCLUSION OF LAW

Based on the findings of facts and analysis above, we conclude that the Examiner erred in rejecting claim 11 under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph.

Based on the findings of facts and analysis above, we further conclude that the examiner did not err in rejecting claims 1 to 5 and 9 to 12 under 35 U.S.C. § 102 (b). The Examiner did err in rejecting claims 6 and 8 under 35 U.S.C. § 102 (b). Claim 7 does not stand rejected under 35 U.S.C. § 102(b).

### DECISION

The Examiner's rejection under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph of claim 11 is reversed.

The Examiner's rejection under 35 U.S.C. § 102(b) of claims 1 to 5 and 9 to 12 is affirmed. The rejection of claims 6 and 8 is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

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AFFIRMED-IN-PART

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